

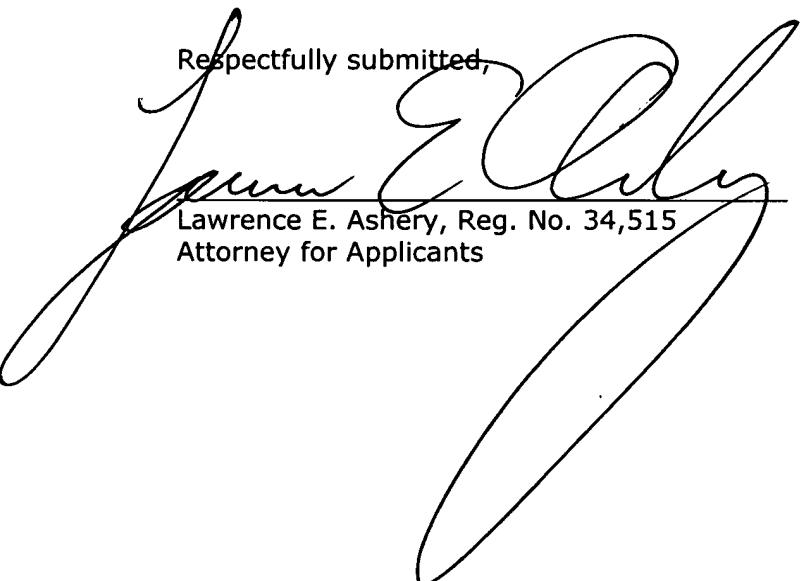
Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

The present invention provides a mixer circuit which can suppress image interfering signals and interfering signals related to higher harmonic component of an oscillator. Using the mixer circuit, it is possible to provide a high-frequency signal receiver which maintains good signal receiving condition. This mixer circuit comprises a plurality of mixers, oscillators, a plurality of oscillator phase shifters which serve to phase-shift the output of the oscillators and supply the output to the mixers, and a plurality of intermediate frequency phase shifters which serve to phase-shift the output of the mixers. The high-frequency signal receiver comprises at least a pre-filter and the mixer circuit.

Attachment

Respectfully submitted,


Lawrence E. Ashery, Reg. No. 34,515
Attorney for Applicants

LEA:ds

Attachments: Abstract

Dated: November 25, 2003

P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

EXPRESS MAIL

Mailing Label Number:

EL 992923887 US

Date of Deposit:

November 25, 2003

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Kathleen Libby

Kathleen Libby

ABSTRACT

A mixer circuit can suppress image interfering signals and interfering signals related to higher harmonic component of an oscillator. Using the mixer circuit, it is possible to provide a high-frequency signal receiver which maintains good signal receiving condition. This mixer circuit comprises a plurality of mixers, oscillators, a plurality of oscillator phase shifters which serve to phase-shift the output of the oscillators and supply the output to the mixers, and a plurality of intermediate frequency phase shifters which serve to phase-shift the output of the mixers. The high-frequency signal receiver comprises at least a pre-filter and the mixer circuit.